IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

MURRAY RUBINSTEIN, et al., Plaintiffs, v. RICHARD GONZALEZ and ABBVIE INC., Defendants.	)	Case No. 14-cv-9465 Honorable Robert M. Dow, Jr. Honorable Maria Valdez

MEMORANDUM IN SUPPORT OF DEFENDANTS' MOTION TO EXCLUDE THE OPINIONS OF CHAD COFFMAN

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Table of Contents

Table of Authorities

Cases

Table of Docket Entries Cited

Docket Number	Document
Docket #106	Expert Report of Chad Coffman
Docket #161	Defendants' Opposition to Plaintiffs' Motion for Class Certification
Docket #161-1	Transcript of the Deposition of Chad Coffman
Docket #161-4	Expert Report of Allan Kleidon
Docket #161-5	Revision to Expert Report of Chad Coffman
Docket #192	Plaintiff's Reply Memorandum of Law in Further Support for Motion for Class Certification
Docket #194	Expert Rebuttal Report of Chad Coffman
Docket #202	Defendants' Surreply in Opposition to Plaintiffs' Motion for Class Certification
Docket #202-2	Rebuttal Report of Allan Kleidon
Docket #241	Plaintiff's Sur-Sur-Reply Memorandum In Support of Motion for Class Certification
Docket #245	Expert Sur-Sur Reply Report of Chad Coffman

Preliminary Statement

The Court should exclude the opinions of Plaintiff's expert, Chad Coffman, that (1) Shire options traded in efficient markets and (2) damages in this matter can be calculated on a class-wide basis. The fundamental problem with Coffman's work is that he did not follow the scientific method: He did not design reliable tests and then abide by those tests regardless of the results. Rather, Coffman repeatedly tried and revised different tests until he found results that supported his intended opinion. He admitted this. To take just one example, Coffman's initial report repeatedly set a 95% confidence level as the target for achieving statistical significance. (Docket #106 ¶¶ 54, 59, 61, 91, n.73, nn.112-115) That threshold was consistent with academic literature and legal precedent. (Docket #161 at 26 & nn.17-18) Yet Coffman testified that if his tests did not meet the 95% confidence level, he "would have argued that it still provides scientific evidence" even at 90% confidence. (Docket #161-1 at 95:17-20) Further, Coffman explained, even a confidence level below 90% might support a conclusion of statistical significance. (*Id*. 95:21-22) Thus, after his revised tests did not meet the 90% level, Coffman opined in his final report that 87% confidence was sufficient. (Docket #245 ¶ 20)

This type of flexible, result-oriented methodology is a consistent theme throughout Coffman's work in this case. He tested and revised until he reached the outcome he wanted. In doing so, he abandoned methodologies he has used in prior cases—and even methodologies he used earlier in this case. This approach is inconsistent with the scientific method, and it rendered Coffman's opinions unreliable. (Docket #161 at 27, citing literature and precedent)

Argument

"Under the *Daubert* framework, a district court must determine whether a given expert is qualified to testify in the case in question and whether his testimony is scientifically reliable." *Am. Honda Motor Co. v. Allen*, 600 F.3d 813, 817 (7th Cir. 2010). Thus, courts must ensure ex-

perts' opinions are "ground[ed] in the methods and procedures of science"—meaning any "inference or assertion must be derived by the scientific method." *Daubert v. Merrell Dow*, 509 U.S. 579, 590 (1993). District courts have "great latitude in determining not only how to measure the reliability of the proposed expert testimony but also whether the testimony is, in fact, reliable." *United States v. Pansier*, 576 F.3d 726, 737 (7th Cir. 2009). Among the factors courts have considered in determining whether an expert's testimony is reliable are whether the expert "deviated from his own stated description" of the appropriate methodology, *Brown v. Burlington*, 765 F.3d 765, 773 (7th Cir. 2014); and "[w]hether the expert has adequately accounted for obvious alternative explanations," *Am. Honda*, 600 F.3d at 817. Although Defendants are the movants here, "[t]he proponent of the expert bears the burden of demonstrating that the expert's testimony would satisfy the *Daubert* standard." *Lewis v. Citgo*, 561 F.3d 698, 705 (7th Cir. 2009).

I. Coffman Is Not Qualified.

The first question the Court must analyze is whether Coffman is qualified to offer opinion testimony about the topics on which he has opined. *See Kumho Tire v. Carmichael*, 526 U.S. 137, 151 (1999). In assessing his qualifications, the Court should consider his "full range of experience and training." *Pansier*, 576 F.3d at 737. Coffman is not an academic, and he does not have an advanced degree in economics or statistics. (Docket #161-1 at 9:13-18) He is essentially a career expert witness: He estimates that between 50% and 90% of his entire career has been litigation consulting. (*Id*. at 16:22-17:5) Thus, Coffman's principal claim to expertise is that he has served as an expert previously. Yet "it would be absurd to conclude that one can become an expert simply by accumulating experience in testifying." *Thomas J. Kline v. Lorillard*, 878 F.2d 791, 800 (4th Cir. 1989); *see also IBEW Local 90 v. Deutsche Bank*, 2013 WL 5815472, *14 (S.D.N.Y. Oct. 29, 2013) (excluding an expert who "does not have any of the basic graduate education, teaching, or research experience or publications that would provide the Court some basis

to believe that he has the qualifications necessary to make his opinions reliable").

In a securities case where Coffman analyzes only whether a common stock traded in an efficient market, perhaps his lack of qualifications would not be as significant: Common stocks are analyzed so often for such purposes in the hundreds of cases filed annually that Coffman has a well-marked path to follow. But here, where Coffman has analyzed options, which are at issue far less often, his lack of training and experience matter more. Indeed, Coffman testified that he had analyzed options only a "handful of times." (Docket #161-1 at 104:1) Defendants found only three such instances—and in those instances Coffman used a *different* methodology than what he ultimately used here. (Docket #161-4 ¶ 60 & n.19) Thus, Coffman has no basis in training or experience to support his analysis of Shire options.

II. Coffman's Opinion That All Shire Option Series Traded Efficiently Is Unreliable.

Plaintiff cannot meet her burden under *Daubert* with respect to Coffman's opinion that each of the 218 Shire option series she seeks to include in a class traded in an efficient market. (Docket #106 ¶ 6) Coffman's opinion was based principally on two tests: a "cause and effect" test and a put-call parity test. The Court should exclude the opinion because (1) the cause-and-effect test was outcome-oriented and unreliable; (2) Coffman failed to consider an obvious alternative explanation for his put-call parity test results; (3) Coffman failed to consider other data that would have undermined his opinion; and (4) Coffman's ultimate conclusion weighed competing factors by his own judgmental *ipse dixit*, rather than by any scientific principle.

A. Coffman's Cause-And-Effect Test Was Outcome-Oriented And Unreliable.

Coffman performed a "cause and effect" study that purported to demonstrate that Shire options behaved differently on days when significant news about Shire was announced than on days when no news about Shire was announced. (Docket #106 ¶¶ 88-98) Coffman concluded that news about Shire was a "cause" and change in the options' prices an "effect," which Coff-

man asserted supports his opinion that each Shire option series traded in an efficient market. (*Id*.) Coffman's study lacks scientific reliability.

First, Coffman's initial cause-and-effect test was not a reliable way to evaluate the question the Court must answer, which is whether Plaintiff has established that each of the 218 option series she seeks to include in a class traded in an efficient market. "For [fraud on the market theory] purposes, each security has a distinct market. A market in the broad sense of the place or mechanism by which securities are traded—such as a stock exchange—can be open, developed or efficient for some securities listed there and not for others." *Cammer v. Bloom*, 711 F. Supp. 1264, 1281 (D.N.J. 1989) (bracket in original). However, Coffman's initial cause-and-effect test did not test each individual option series, or even *any* individual option series. Rather, Coffman created two indexes—one of put option series and the other of call option series—and tested those indexes. (Docket #106 ¶¶ 88-89) But averages mask variations within a population. As a result, testing the average of a diverse pool does not permit a conclusion about each member of the pool; it permits a conclusion only about the average member. Thus, Coffman's initial test was not a reliable way to test whether each Shire option series traded in an efficient market. *See In re Pharmacy Benefit Mgrs.*, 2017 WL 275398, *20 (E.D. Pa. Jan. 18, 2017) ("Another insurmountable *Daubert* fit problem arises from the use of national averages in the expert model since averages cannot demonstrate antitrust impact for individual class members.").[1]

[1] Coffman responds that this "criticism (i.e., showing something is true on average does not imply it is true in every circumstance) may be said in virtually every statistical analysis and statistical conclusion ever performed." (Docket #245 ¶ 13) That is correct: Any time an expert attempts to draw conclusions about each member of a population based on testing the average of that population, the methodology would be unreliable. Averages can be, and are, properly used to understand aggregate characteristics about the population studied, but *not* specific members of the population. *U.S. v. Coleman*, 483 F. Appx. 419, 421 (10th Cir. 2012).

Testing only the average was particularly objectionable here because the 218 option series behaved differently from one another. Coffman *admitted* this disparate behavior when, in his second report, he explained he had changed how he calculated his averages because there were "large outliers that were inappropriately skewing the analysis." (Docket #161-5 at 3) In other words, certain option series behaved *contrary* to other option series and pulled the average to a result that did not support Coffman's conclusion of efficient trading. However, rather than recognize this meant that testing the average did not make sense as a way to draw conclusions about each individual option series, Coffman simply changed how he calculated the average.

Second, Coffman's initial work included an error in how he interpreted the data for Shire's option prices. (Docket #161 at 22-24) When that error—and only that error—was corrected, it reversed Coffman's results for part of his cause-and-effect study. (Docket #161-4 ¶ 57) Coffman admitted his mistake. (Docket #161-1 at 119:7-8) However, rather than just correct his error, Coffman simultaneously made a change to his methodology that allowed him to continue to obtain a result that supported his conclusion. (Docket #161-5 ¶¶ 7-8) Specifically, he changed how he calculated his averages from a weighted average, which gave more emphasis to option series with larger open positions, to an unweighted average, which gave each option series the same weight regardless of whether there was one open contract or 1,000 or 10,000. (*Id.* ¶ 8) Coffman's change was entirely arbitrary, was contrary to how he calculated averages in the few prior instances where he analyzed options, and lacked support in academic or professional literature.[2] That the unprincipled change in methodology changed the outcome of the test shows that it was the choice of methodology driving Coffman's result, not the underlying data. *See, e.g., In*

[2] Moreover, the de-emphasis of option series with larger open interests conflicted with Coffman's other tests—for instance, in his rebuttal report he tested 24 of the 218 option series by choosing the 24 series with the largest open interest. *See infra* at 8.

re Libor-Based Fin. Instr., 299 F. Supp. 3d 430, 468 (S.D.N.Y. 2018) (When "multiple methodologies intended to measure the same phenomenon … produce inexplicably inconsistent results," that indicates a lack of reliability).

Coffman's belated methodological change demonstrates that his work is not scientific. As Defendants' expert explained, the scientific method requires that a scientist "determine what will be tested and what criterion will be used for evaluating test results *before* obtaining the test results." (Docket #161-4 ¶ 63, emphasis added) The scientific method does not permit "the scientist to choose a new test if unexpected results are obtained from the initial test, or to run many tests and choose the one that yields the desired results." (*Id.*; *see also* Ref. Man. on Scientific Evid. at 256 (3d Ed. 2011) ("If enough comparisons are made, random error almost guarantees that some will yield 'significant' findings, even when there is no real effect.")) Yet Coffman admitted that is what he did: After he ran his initial test, he "further review[ed] and consider[ed]" the data and saw that his methodology had produced results he did not want. (Docket #161-5 ¶ 7) So he changed his methodology. In doing so, he not only abandoned the methodology he initially set out when beginning his work in this case, but he also abandoned the methodology he used in the only three prior reports Defendants have found where he studied options. (Docket #161-4 ¶ 60) The Seventh Circuit has upheld the exclusion of expert opinions where the expert "deviated from his own stated description" of the appropriate methodology. *Brown*, 765 F.3d at 773. And precedent is clear more broadly that courts should reject under *Daubert* outcome-oriented work like this. (Docket #161 at 27, citing authority)

Third, Coffman's willingness to change methodology was shown again in the way he incorporated variances into his cause-and-effect test. (Docket #202 at 12-13; Docket #161 at 22) Coffman's own back-up calculations for his initial work showed the variances between "news

days" and "no news days" were unequal. (Docket #161-4 Exs. 7A-7D) Yet his calculation whether there was a statistically significant difference in Shire options' behavior on the two types of days used equal variances, rather than unequal. (*Id.* ¶ 44) When corrected to reflect that variances were unequal, Coffman's results for four of the six parts of his cause-and-effect test produced results contrary to market efficiency. (*Id.* ¶¶ 45-47)

Coffman first responded by insisting that variances were the thing being ultimately tested, not an input into the calculation. (Docket #194 ¶ 25) Coffman took this position even though neither of his first two reports even mentioned variance, and even though he described variance at his deposition as an "input." (Docket #161-1 at 31:15-17) Thus, Coffman was yet again changing his methodology—or, more technically, recharacterizing it—in a way that was inconsistent with the methodology as he designed it before he knew what the results would be.

Coffman next responded by characterizing equal variances as an "assumption." (Docket #194 ¶¶ 23-28) But Coffman's own work showed that variances are something Coffman *tested*, not something he assumed. (Docket #161-4 ¶¶ 44-47 & Exs. 7A-7D) Coffman provided no explanation why he tested the variances and then, after he determined they were unequal, *assumed* equal variances in his ultimate calculation. Continuing to use equal variances as the basis for his analysis of market efficiency even after he determined the variances were unequal is, unsurprisingly, inconsistent with the literature. (Docket #202-2 ¶ 30 n.6) And, further, Coffman did not dispute that his own work-product showed that if he had incorporated unequal variances into his analysis, his results would not have supported his conclusion that Shire options traded in efficient markets. (*Id.*) Ignoring his own results rendered Coffman's work entirely unreliable.

Finally, Coffman's third report presented a new methodology yet again. This time, Coffman tested 24 of the 218 option series at issue, obtained "positive" results for only 21 of the

24 series, and then opined that the test supported his conclusion that all 218 option series traded efficiently. Again this work failed the test of reliability. First, Coffman ignored his own results. His test produced "positive" results for only 21 of the 24 option series he tested, yet he asserted the test supported his conclusion that *all 218* option series traded efficiently, *including the three series he actually tested for which he did not obtain supportive results*. (Docket #202 at 8) Coffman's opinions cannot be deemed reliable if they did not even match his own test results. Second, Coffman's test was unreliable because he failed to consider any "robustness" checks—that is, how sensitive the outputs of his test were to small changes in the inputs. In this case, such an analysis would have examined the robustness of Coffman's results to changes in, among other things, the number of option series tested. Defendants' expert established that had Coffman expanded his sample size only slightly, the percentage of option series for which he did not obtain supportive results would have grown to 25%. (*Id.*) This small change in sample size would have reinforced that Coffman could not conclude all option series traded efficiently, but Coffman gave it no consideration. Third, Coffman's test utilized a methodology that was inconsistent with his other tests. Specifically, Coffman chose to test the 24 series with the largest open positions during the class period. (Docket #202-2 ¶ 37) Yet Coffman's revised methodology for how he calculated the average for his indexes, described above (*supra* at 5), treated each option series the same regardless of the size of the open position. (*Id.*) That inconsistent treatment of the importance of open interest is another example of Coffman choosing whichever methodology delivered a result supportive of his opinions, rather than selecting a methodology based on scientific principles. Fourth, Coffman tested the 24 option series for significant price movement on only a single day: October 15, 2014. (Docket #194 Ex. 2) This decision rendered the test unreliable for four reasons: (1) because testing price movement on a single day and then opining that

the trading was efficient throughout the class period was not a reliable methodology, as Defendants' expert explained (Docket #202-2 ¶¶ 39-42);[3] (2) because the single day Coffman did test was the day when the price was most likely to have moved even if the market was not efficient;[4] (3) because this was a change in methodology from Coffman's original cause-and-effect test, where he tested for price movement on multiple days (Docket #106 ¶¶ 91-92);[5] and (4) because *if* Coffman had tested the 24 series on the days his original test used, he would have obtained results that did not support his opinion of efficient trading (Docket #202-2 ¶¶ 44-45 & Ex. 2).

B. Coffman's Put-Call Parity Test Ignored An Obvious Alternative Explanation For His Result.

"In deciding whether an expert employed a reliable method, the district court has discretion to consider '[w]hether the expert has adequately accounted for obvious alternative explanations.'" *Brown*, 765 F.3d at 773. It is clear that Coffman did not do so in connection with his put-call parity test—his second, and final, test of whether Shire options traded in efficient markets. There is no dispute about what Coffman's put-call parity test assessed: As he admitted, "[t]he whole point of my put-call parity test was to evaluate whether there were arbitrage oppor-

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[3] *See Bell v. Ascendant Solutions*, 2004 WL 1490009, *3 (N.D. Tex. July 1, 2004) (rejecting an expert's market-efficiency opinion where the expert's result was driven by the price movement on only a single day); *cf. In re Northfield Labs Sec. Litig.*, 267 F.R.D. 536, 548 (N.D. Ill. 2010) (excluding the plaintiff's expert's opinion on market efficiency as unreliable because the expert made decisions about which dates to include in event study that "tend[ed] to skew it toward a conclusion that the market was efficient").

[4] *See Ohio Public Emps. v. Fed. Home Loan Mortg.*, 2018 WL 3861840, *7 (N.D. Ohio Aug. 14, 2018) (rejecting use of a date on which it was already known that there was a price impact as the single date for testing: "Dr. Feinstein's selection of November 20, 2007 as the sole date of his event study was entirely improper because you are supposed to hypothesize and then see your results. You are not supposed to know your results in advance.").

[5] *See In re Fed. Home Loan Mortg.*, 281 F.R.D. 174, 182 (S.D.N.Y. 2012) ("McCann's testimony about the efficiency of the market was unreliable and unpersuasive. His first event study was deeply flawed. He changed the relevant news dates from the first study to the second, and then changed them again in his testimony.").

tunities." (Docket #194 ¶ 33) However, as Defendants' expert explained, the lack of arbitrage opportunity does not indicate efficient trading because a lack of arbitrage opportunity can be due to wide bid-ask spreads—which Coffman did not dispute. (Docket #202-2 ¶ 52) Defendants' expert also explained that the bid-ask spreads for Shire options were extremely wide—which Coffman also did not dispute. (Docket #161-4 ¶¶ 19-25; *see also infra* at 12) Plus, Coffman himself admitted that "[a] large bid-ask spread is indicative of an *inefficient* market, because it suggests that the stock is too expensive to trade." (Docket #106 ¶ 71, emphasis added)

Yet when he saw the result of his put-call parity test, and even though he was aware of the wide bid-ask spreads for Shire options, Coffman failed to consider whether the result was caused by the wide bid-ask spreads rather than efficient trading. Further, when Defendants explained Coffman's error, he essentially conceded the point, writing:

> Dr. Kleidon also points out that the magnitude of bid-ask spreads for some Shire Options implies the put-call parity test has low power and therefore does not provide dispositive evidence of market efficiency. I never indicated that the put-call parity test alone was dispositive. Dr. Kleidon's assertion that the test has low power does not in any way suggest the test is invalid or inappropriate. Low power or not, a properly conducted put-call parity test found no violations of put-call parity. While not dispositive proof of market efficiency, this is clearly consistent with market efficiency and provides relevant economic evidence.

(Docket #194 ¶ 34, internal footnote omitted) This statement stands in sharp contrast to Coffman's original assertion that his put-call parity result "is strong evidence that Shire's Options traded efficiently." (Docket #106 ¶ 86) Regardless, even Coffman's retreat position continued to ignore that, if what caused put-call parity was the wide bid-ask spreads, then his test provided *no* support for his conclusion of efficient trading—and, in fact, undermined it. That is precisely what Defendants' expert concluded, and Coffman ignored it. (Docket #202-2 ¶¶ 52-55)

Moreover, not only did Coffman ignore an obvious alternative explanation for his result, but he also ignored an obvious alternative testing methodology that would have eliminated the

effect of the wide bid-ask spreads. As Defendants' expert explained, the only change to Coffman's methodology he would have needed to implement was to use the midpoint between bids and asks as his prices, rather than individual bids and individual asks. (Docket #202-2 ¶ 55) Coffman used those midpoints in his cause-and-effect testing, so he is clearly familiar with them. Defendants' expert showed that if Coffman had run the put-call parity test that way—that is, to exclude the wide bid-ask spreads—put-call parity would have been violated *more than 90% of the time*, which is inconsistent with Coffman's opinion that Shire options traded efficiently. (*Id.*) Coffman's only response was that his test was a "valid" put-call parity test and "demonstrate[d] a lack of arbitrage opportunities." (Docket #245 ¶ 24) But whether there were arbitrage opportunities is not the question Coffman opined on; he opined on market efficiency. Coffman's disregard of the obvious alternative explanation for his result rendered his opinion unreliable.

C. Coffman Ignored Analyses That Would Have Produced Data That Undermined His Conclusion Of Efficient Trading.

Coffman's initial report stated: "In my view, the *Cammer* decision identified important metrics to consider when evaluating efficiency for purposes of the 'fraud on the market' theory." (Docket #106 ¶ 23) One of the *Cammer* factors is trading volume, which Coffman asserted "is an important indicator of market efficiency." (*Id.* ¶ 28) Coffman also analyzed other factors he found significant to an analysis of market efficiency, including the bid-ask spread, which he argued "is an important indicator of the degree to which a market is developed." (*Id.* ¶ 71; *see also id.* ("Thus, the narrower the bid-ask spread, the greater the indication of an efficient market.")) Despite these statements, Coffman did not consider those factors when he analyzed Shire options. This is yet another methodological inconsistency that rendered Coffman's test unreliable.

That failure is particularly troubling because, as Defendants have previously explained, had Coffman analyzed trading volume and bid-ask spread, the results of those analyses would

have weighed against a conclusion of market efficiency. The trading volume data shows that 62% of the call option series and 50% of the put option series that were traded at all during the class period traded on just a single day. (Docket #161-4 ¶ 15 & Ex. 4) And, even during the nearly two-year "analysis period" Coffman used for his initial analyses, 22.9% of the call option series and 33.5% of the put option series that traded did so on only one of the 439 trading days. (*Id.* ¶ 15) Further, even on the day within the class period on which the largest number of option series were traded, fewer than 10% of the put option series or call option series had even a single trade. (*Id.* ¶ 17 & Ex. 5)[6] By contrast, Shire ADSs traded on every day of the class period and on every day during Coffman's analysis period. (Docket #202-2 ¶ 11)

The bid-ask spread data similarly undermines Coffman's conclusion. Coffman explained in regard to Shire ADSs that they had narrow bid-ask spreads that "ranged [between] 0.0042% and 0.056%," which he stated compared favorably to the 1.32% spread he found from a random sample of 100 stocks that traded on the New York Stock Exchange or the Nasdaq. (Docket #106 ¶ 72) Coffman also testified that if the bid-ask spread for ADSs was greater than 50%, "I don't think it would be fair to say that the bid-ask factor worked in favor of market efficiency." (Docket #161-1 at 103:6-9) However, the bid-ask spreads for Shire option series, which Coffman failed to consider, ranged from 4.2% to 195.3% for call option series and from 12.2% to 189.2% for put option series—all of which were substantially wider than Coffman's random sample and many of which exceeded 50%. (Docket #161-4 ¶ 23 & Ex. 6)

Coffman ignored the bid-ask spread data entirely. And his response to the trading volume data was to reinterpret it to argue that it does not undermine his position. (Docket #194

[6] Coffman argued that Defendants "focus on Shire Options that did not trade at all during the Class Period rather than those that did trade." (Docket #245 ¶ 28) That is inaccurate: The numbers above concern only option series that traded during the class period.

¶¶ 36-41) For *Daubert* purposes, however, the point is that Coffman failed to engage the question in the first instance. The *Daubert* issue is one of methodology, and Coffman's failure to analyze factors that he conceded are important rendered his opinion unreliable.

D. Coffman Offered No Scientific Methodology For Weighing The Factors He Analyzed, Relying Only On His "Judgment."

Daubert also requires an expert to bring scientific tools to bear in reaching his conclusions, rather than just the expert's judgmental say-so. "A witness who invokes 'my expertise' rather than analytic strategies widely used by specialists is not an expert as Rule 702 defines that term." *Zenith Elec. Corp. v. WH-TV Broad.*, 395 F.3d 416, 419 (7th Cir. 2005). Yet the final step in Coffman's analysis of whether Shire options traded in efficient markets lacks any foundation in scientific principle. Specifically, after Coffman had analyzed the various factors regarding Shire options, he had to weigh them to reach a final opinion on whether or not each Shire option series traded in an efficient market. To satisfy *Daubert*, Coffman must have had some principle that guided that consideration. But he articulated none.

Rather, Coffman testified that "how you would weigh the factors would depend on what exactly the evidence was telling you." (Docket #161-1 at 87:17-18) Coffman continued:

> So I don't think there's an overall, you know, well-accepted methodology for weighing them ex ante. I think you have to take into account the strength of the evidence of each of them and the facts and circumstances of each case and each security to think about how you might weigh evidence that's not supportive of efficiency related to others that point towards efficiency.

(*Id*. at 87:18-88:2) Coffman then concluded by admitting: "So I don't have — I don't think that I can describe an overall methodology for doing that." (*Id.* at 88:3-4) Thus, the final step in Coffman's analysis lacked anything other than his subjective weighing of the evidence, for which he said there was no "well-accepted methodology." This gestalt analysis untethered to any recognized scientific methodology does not satisfy Rule 702. *See Bricklayers & Trowel*

Trades v. Credit Suisse, 752 F.3d 82, 95 (1st Cir. 2014) (affirming the exclusion of expert testimony because the expert "seemingly made a judgment call as to confounding information without any methodological underpinning"). Coffman's failure to provide any scientific methodology for weighing various considerations is even more important in this case because there are several factors that weigh against a finding of efficient trading—including trading volume, bid-ask spreads, and the corrected cause-and-effect study, all discussed above. Coffman had no scientific methodology to weigh those factors against any factors that weighed in favor of an opinion of market efficiency. As a result, his methodology was unreliable.

III. Coffman's Opinion Regarding The Ability To Measure Damages On A Classwide Basis Should Be Excluded Because His Proposed Methodology Is Unreliable.

The second Coffman opinion the Court should exclude is that damages in this action for both ADS and options investors can be calculated on a classwide basis. (Docket #106 ¶ 7) Coffman admits that his intended methodology to measure damages is "backcasting." (Docket #194 ¶ 47 ("I would expect to use a standard constant dollar back-casting methodology to compute artificial inflation.")) Backcasting observes "what happens when the truth is finally disclosed and use[s] that to work backward, on the assumption that the lie's positive effect on the share price is equal to the additive inverse of the truth's negative effect." *Glickenhaus & Co. v. Household Int'l*, 787 F.3d 408, 415 (7th Cir. 2015). More simply, backcasting looks at the drop in the stock's price and assumes that is the amount by which the stock price would have fallen on the day of the alleged misstatement had the truth been disclosed on that day, rather than a misstatement. *See id*. at 417 (backcasting assumes "the inflation caused by the false statement [is] equal to the value of the truth … because had the statement been truthful, the stock price would have done what it did do once the truth was revealed."). However, because backcasting assumes the defendant would have disclosed the "truth" on the day of the alleged misstatement, rather

than making the alleged misstatement, the Seventh Circuit has endorsed backcasting only when "the only alternative to a false statement is a true statement." *Glickenhaus*, 787 F.3d at 417 n.4. "If *no statement* was an alternative, then the model is much less accurate because it measures the effect of the truth, not the effect of silence." *Id*.

In this case, it is undisputed that Defendants had no obligation to issue any statement on the day of the alleged misstatement, September 29, 2014. That is, Defendants could have complied with the securities laws by simply remaining silent on that day. As a result, backcasting is "much less accurate" and therefore not reliable. Throughout the two reports Coffman issued after Defendants first made this argument, as well as the two briefs Plaintiff filed in support of class certification after that time, Plaintiff and Coffman offered no response whatsoever to *Glickenhaus*'s statement that backcasting is not accurate in a situation like this one. (Docket #192, 194, 241, 245) The only methodology Coffman proposed for measuring damages in this case—backcasting—is not reliable, and his opinion should be excluded.

Further, even if backcasting were an arguably acceptable method for calculating damages in this case, Coffman did not offer any reliable method to measure the effect of the truth. As Plaintiff stated in her sur-surreply, her theory of liability and damages is "based on when Defendants should have disclosed that AbbVie was reconsidering the Combination." (Docket #241 at 5) Coffman did not identify any methodology to measure what effect on the price that disclosure would have had. Instead, he offered a hypothetical analysis based what would have happened on September 29 if AbbVie had disclosed "the changed probability of [the deal closing] after the Treasury Notice." (Docket #245 ¶ 33) Even Plaintiff does not contend that is something she could prove. Accordingly, Coffman provided no reliable methodology to measure damages as Plaintiff herself has described them.

Conclusion

For the foregoing reasons, the Court should exclude Coffman's opinions that Shire options traded in efficient markets and that he has identified a reliable methodology to measure damages classwide in this action.

Dated: October 12, 2018

Respectfully submitted,

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